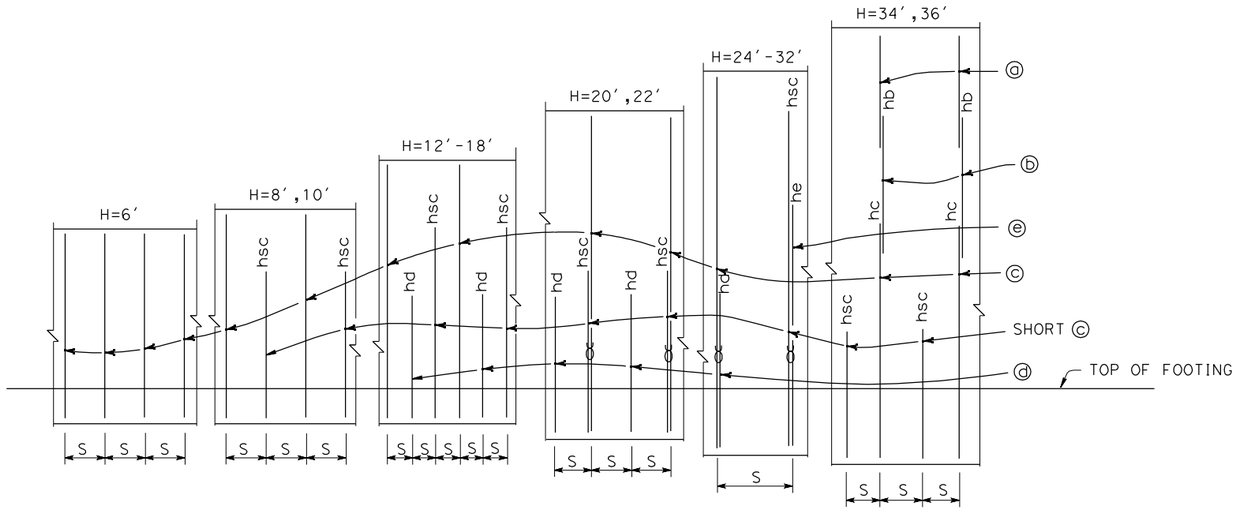
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
X	X	X	X	X	X

REGISTERED CIVIL ENGINEER — DATE X

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

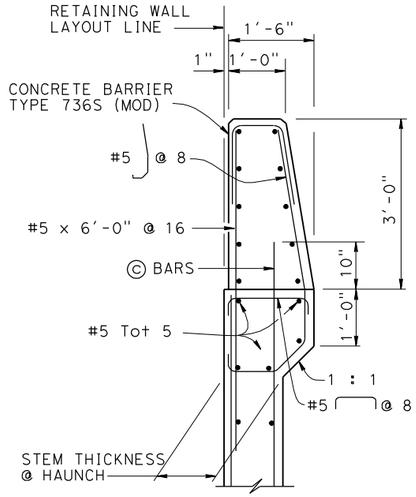
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



ELEVATION
No Scale

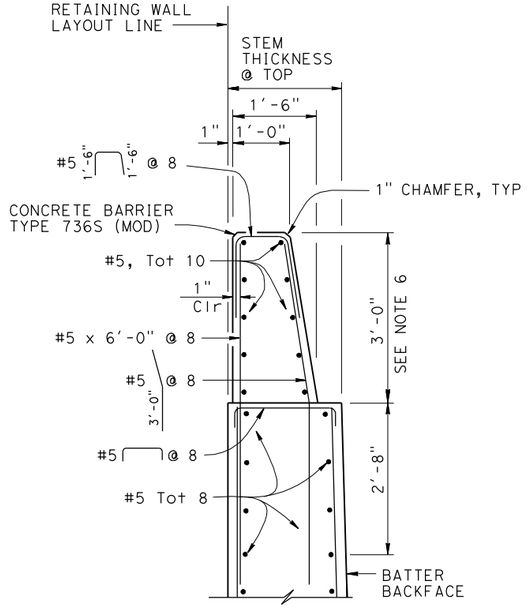
NOTE:

"hb", "hsc", "hc", "hd" and "he" above bars indicate distance from top of footing to upper end of the bars, see table.



DETAIL A - WITH HAUNCH
¾ = 1′-0"

For Details not shown, see "DETAIL A - WITHOUT HAUNCH"



DETAIL A - WITHOUT HAUNCH
¾ = 1′-0"

DESIGN DATA

Design: AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments

LS: Varied surcharge on level ground surface

CT: 54 kip maximum traffic impact loading evenly distributed over 10 feet at top of the barrier and 1:1 distribution down and outward

EQE: Mononabe-Okabe Method
K_h = 0.2
K_v = 0.0

Soil: Ø = 34°
γ = 120 pcf

Reinforced Concrete: f′c = 3600 psi
fy = 60,000 psi

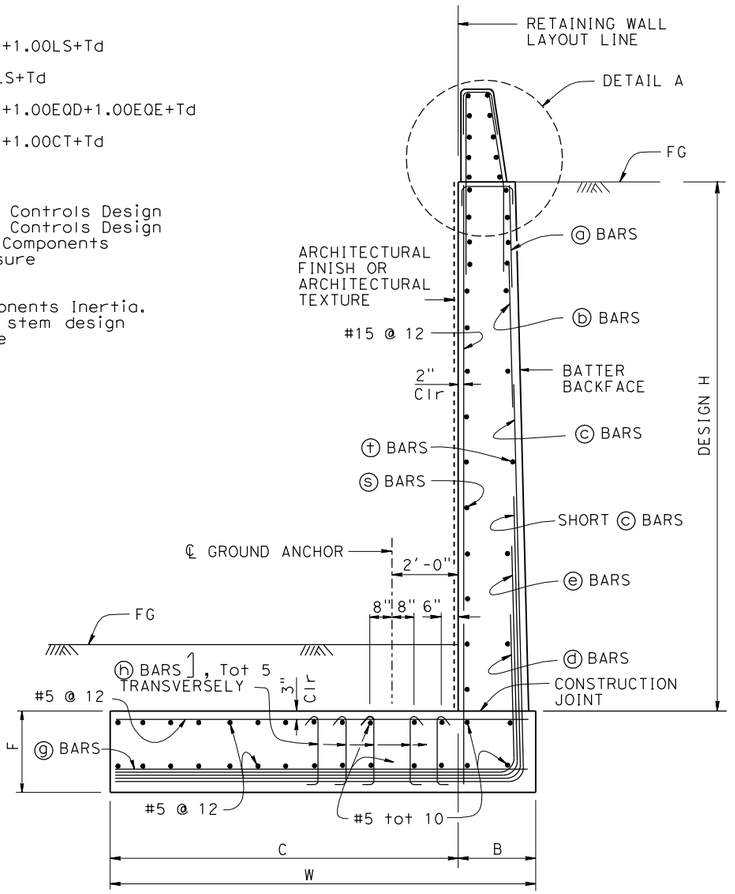
Load Combinations and Limit States

Service I	Q=1.00DC+1.00EV+1.00EH+1.00LS+Td
Strength I	Q=αDC+βEV+1.50EH+1.75LS+Td
Extreme I	Q=1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE+Td
Extreme II	Q=1.00DC+1.00EV+1.00EH+1.00CT+Td

Where:
- Q: Force Effects
- α: 1.25 or 0.90, Which ever Controls Design
- β: 1.35 or 1.00, which ever Controls Design
- DC: Dead Load of Structure Components
- EV: Vertical Earth Fill Pressure
- LS: Live Load Surcharge
- EQE: Seismic Earth Pressure
- EQD: Soil and Structure Components Inertia. Soil inertia ignored for stem design
- CT: Vehicular Collision Force
- Td: Anchor Design Load

NOTES:

1. For Retaining wall Architectural finish or texture see Details elsewhere in Project Plans
2. For Details not shown and Drainage Notes see (3-5)
3. Footing cover, 2′-0" minimum.
4. For H=6′ through 10′, extend ⓑ bars into Barrier for stem with haunch.
5. Shift ⓒ bars, ⓓ bars and ⓔ bars as required to clear formed hole for ground anchor.
6. Dimensions may vary with roadway cross slope and with certain thickness of surfacing. See Project Plans.
7. Footing is designed to resist 1.33 Td assuming the maximum anchor spacing shown in the table.



SPREAD FOOTING SECTION
No Scale

STANDARD DRAWING		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. X	X
FILE NO. xs14-375-1	APPROVAL DATE July 2011			POST MILE X	RETAINING WALL TYPE 7B - DETAILS NO. 1

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11))

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: X PROJECT NUMBER & PHASE: X CONTRACT NO.: X

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
				X	X

USERNAME => $USER DATE PLOTTED => $DATE TIME PLOTTED => $TIME

FILE => $REQUEST